Mail Tubes May Radiate from New Postoffice Like Wheel Spokes

Swifter Distribution of Letters than New York Has Ever Experienced Will Follow.

WITH the completion of the new uptown postoffice building, in Eighth avenue, opposite the Pennsylvania terminal, which must be finished within twenty-three months, the city of New York will have an institution that will wonderfully facilitate the postal business inside and outside its boundaries. New York is known for doing things on a large scale, and it is the rapid growth of the metropolis which is responsible for it all. Every decade in our history is marked by some notable improvement, and the Postoffice Department has kept pace with the times. Considering the tons of mail that are daily handled in this city, it is really remarkable to see the speed with which it is received and delivered. Our postal system is widely different to-day from what it was a hundred years ago, when it was a common sight to see postmen trundling wheelbarrows containing mail bags through the city streets.

Speed is the first thing in the mind of the postmaster who has charge of the mail service, and the sooner a letter is forwarded to its destination the more satisfactory is the result. The adoption of pneumatic tubes between the main postoffice and several sub-stations in Manhattan has marked a great improvement in the delivery of mail. But the new building will insure a swiftness in mail delivery never before approached.

About 40 per cent of the total outgoing and incoming mail of our city is handled over the lines of the Pennsylvania Railroad system, and this mail, which amounts to something like two hundred and fifty to three hundred tons a day, is now concentrated at the new Pennsylvania terminal station. A temporary postoffice building has been set up on one end of the site for the new structure, and here has been installed an elaborate and unique mail-handling equipment, which eventually will be incorporated into the new structure. In this plant are four large plunger elevators that provide connections between mailing platforms and the basement and train platform levels. Four train platforms and six tracks under the western end of the postoffice have been set apart wholly or partly for railway mail train service. On these tracks there is room for a maximum of twenty-six mail cars at one time, and all four platforms will eventually take mail departing from the station. The southerly platform is arranged specially for receiving the incoming mail from the West and South. Aside from the mails handled on these tracks there are other and lighter mails for dispatch by trains on other tracks. The pouches of the latter will be sent through spiral chutes or elevators down to a trucking subway twelve feet wide, extending eastward under the tracks for a distance of nearly 1,000 feet, being provided with transverse branches extending north and south and connected with the different platforms by means of elevators.

These facilities are not of themselves adequate to provide for the prompt handling and dispatch of the enormous quantities of mail—comprising from 12,000 to 16,000 bags weighing from a few pounds to 200 pounds each—which daily are sent out and received at the station. The dense mass of mail must be handled with great celerity, and a mechanism had to be devised which would be quick and reliable in operation while occupying a cramped space, made so by the arrangement of the building, which will straddle the railroad tracks. The unique engineering character of the mail-handling work required a radical departure from conventional conveying machinery design.

Here are two classes of machinery provided, one for handling the outgoing and one for taking care of the incoming mail. The mail pouches for the outgoing trains are sorted after being received at the station in wagons, then they are sent to the basement level through spiral chutes, where they are opened and the contents redistributed and repouched. The reassembled pouches, together with unopened pouches, are then fed into spiral chutes which deliver the bags to conveyor belts located at the track level above the mail cars. The belts, which are provided with unloading mechanisms, direct the pouches right into the mail cars.

The speed of the apparatus may be estimated from watching the loading of one of the heavy Western mail trains that carry the early morning newspapers and steamer mail, together with a vast quantity of first class mail matter to Western points—the total amounting to over fifty tons, comprising 1,200 to 1,500 mail pouches. A great portion of this mail is resorted and segregated for the different cars and dispatched from the station in less than three hours. The last hour sees the handling of over twenty-five tons, and the bags are frequently unloaded into the cars at the high rate of one every second.

The bags descend from the spiral chute entrances through winding convolutions and continue their journey along the rapidly moving belts until they finally emerge at the car's door. The entire journey, which is made noiselessly, occupies only thirty seconds. The pitch and the angles of the chutes have been so carefully planned that a wide variation of weight, such as an empty canvas mail pouch and a full bag of magazines weighing 300 pounds, will move along with the same speed. The spiral curves are so designed that the speed and certainty of delivery of bags of extreme weights are regulated by centrifugal action. For this reason it is possible for a single letter and a 300-pound bag to be delivered through the chutes at practically the same time.

To handle the incoming mails, openings are provided in the train platforms into which pouches are thrown from the arriving cars. Then the mail is transferred from the receiving hoppers by means of belts located below the platform floor. An intricate mechanism operated by compressed air is designed to feed the bags on to the belt at suitable intervals, so that the pouches may arrive at the end of the belt at the proper time to be mechanically transferred to a bucket elevator that lifts the bags to the basement and mail platform levels of the postoffice.

It is necessary that the belts operate in conjunction with the bucket elevator, and the design of this co-ordinated horizontal and vertical equipment for incoming mails was one of the special problems of the system. The elevator buckets pick up the pouches as they come to it from the belt, and there must be no possibility of crushing or injuring a pouch at the transfer point between belt and elevator. In other words, each bag must be transferred from the belt to the elevator at the right moment for one of the buckets to receive it, and this operation is made possible by a specially designed automatic machinery.

The bucket lift is of special design in almost every particular, and a person may form some idea of its size by the fact that the buckets and the endless driving chains, together with the driving mechanism, weigh more than twenty tons. The highest grade of steel enters its construction. And one of these elevators will handle 1,200 mail pouches every hour.

The completed postoffice building will contain a special bag cleaning device, which will be the first of its kind in this country. It will be similar to the one installed in the postoffice in London, England. This apparatus is in the form of a large wheel fifteen feet in diameter and from four to five feet wide. Bags are thrown inside the wheel, which by rotation cleans from four hundred to five hundred pouches every half hour. By a vacuum process the dust is removed from the room containing the bag cleaner, the operation being performed by means of sucking the dust through a hole in the ceiling of the room.

With the constantly increasing postal business there will be need for more pneumatic tubes, and the next installation along this line will undoubtedly be between the new and the present main Postoffice, at Broadway and Park Row. It is to be hoped that Congress will make the necessary appropriation for this requirement in the near future. The pneumatic tube is the speediest conveyance that so far has been invented for the dispatch of mail between stations in congested cities. The conveyor holding the mail is a cylinder eight by twenty-four inches, and is driven by compressed air through a metal tube at the rate of thirty miles an hour. At the present time there are twenty miles of pneumatic tubes connecting all the stations south of 125th street, including the station on that street, and above that line there is an automobile service between stations.

At some future day New Yorkers need not be at all surprised to have pneumatic tubes leading from the new postoffice to all our large and towering office buildings, each of which receives a quantity of mail every day that is equal to a postal delivery in a city of from five to ten thousand inhabitants. Such a system would save time, money and labor, and our mail carriers would be relieved of the heavy burdens that now tax all their energy in walking between the postoffice and their routes of delivery.

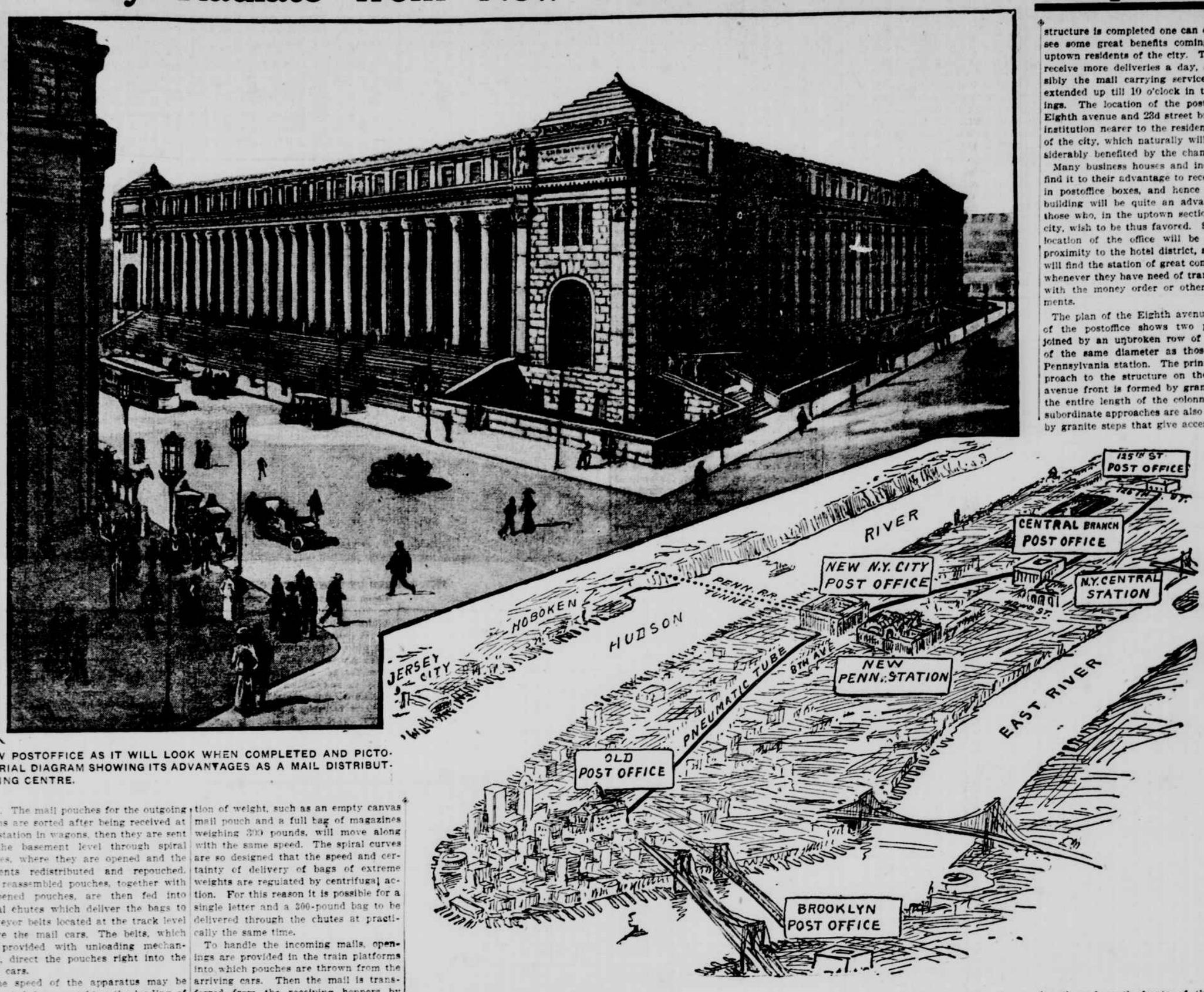
The downtown section of Manhattan has almost hourly deliveries of mail at the present time, but after the coming structure is completed one can expect to see some great benefits coming to the uptown residents of the city. They may receive more deliveries a day, and possibly the mail carrying service will be extended up till 10 o'clock in the evenings. The location of the postoffice at Eighth avenue and 23d street brings the institution nearer to the residential part of the city, which naturally will be considerably benefited by the change.

Many business houses and individuals find it to their advantage to receive mail in postoffice boxes, and hence the new building will be quite an advantage to those who, in the uptown section of the city, wish to be thus favored. Since the location of the office will be in close proximity to the hotel district, strangers will find the station of great convenience whenever they have need of transactions with the money order or other departments.

The plan of the Eighth avenue façade of the postoffice shows two pavilions joined by an unbroken row of columns of the same diameter as those of the Pennsylvania station. The principal approach to the structure on the Eighth avenue front is formed by granite steps the entire length of the colonnade, and subordinate approaches are also provided by granite steps that give access to the north and south fronts of the corner pavilions. The façades on the streets are continuous and of the same general motive as the Eighth avenue front, pilasters being used instead of columns. The street façades are also terminated in pavilions at the westerly ends.

The building will be directly over the Pennsylvania Railroad tracks. The pillars and steel work on which the structure will rest are already in position, and the architects, when they designed the building, had to follow a special plan to suit the supports between the tracks.

The new postoffice will have a working force of about 1,500 persons, and the structure will cost between $5,000,000 and $6,000,000.



NEW POSTOFFICE AS IT WILL LOOK WHEN COMPLETED AND PICTORIAL DIAGRAM SHOWING ITS ADVANTAGES AS A MAIL DISTRIBUTING CENTRE.

Although there are three scruples in a dram, the more drams one takes the fewer scruples one has.

Story of Why Lord Derby "Forgot" on Witness Stand Shows "Honor Overriding the Law"

Ethics of Caste Manifested in Recent De Forest Case in England by "Catskin" Earl Who Temporarily Lost His Memory —Many Cases Have Occurred in Which Obedience to Law in This Particular Have Cost Social Standing.

Lord Derby, one of the four so-called "catskin" earls, whose earldom dates from 1485, when it was bestowed upon the second Lord Stanley by Henry VII in return for the crown of England, which he had placed upon the head of that monarch on the battlefield of Bosworth, is just at the present moment the most popular figure in English life, especially among his countrymen of gentle birth. The reason for this is his extraordinary lapse of memory in the witness box when called upon to testify the other day in the slander case brought in London by young Baron Maurice de Forest against his mother-in-law, the Dowager Lady Gerard, and against her brother, Harry Milner. The latter, who is the widower of that Caroline Duchess of Montrose who was so famous on the turf, racing under the name of "Mr. Manton," is the controller and manager of the extensive estates of Lord Derby, who is one of the wealthiest of British peers, and Baron de Forest, who is a natural son of the late Baron Hirsch and one of his chief heirs, charged Milner with having maligned him in the eyes of Lord Derby by informing him that he, the plaintiff, had been guilty of the utmost brutality toward the baroness.

Lord Derby was the first witness summoned. The trial, which royalty had done everything in its power to avert, had been three times put off in order to secure his attendance. He had gone abroad in order to avoid being mixed up in the affair, but finally realized that he could not remain out of the country indefinitely on account of this case. The anxiety of the baron to have him as the first witness was due to the fact that Lord Derby enjoys so high a reputation for integrity and honor that he felt sure that if the earl would admit in court that he had heard from Harry Milner the accusations complained of the case would be won. Lord Derby, however, when he entered the witness box declared on oath that while he recalled vaguely having been told by Harry Milner that there was some trouble between his niece, the Baroness de Forest, and her husband, he could not possibly remember having been told by Milner any particulars of the affair. Indeed, to most of the questions put to him he replied that his memory was at fault. The presiding judge did not unduly press him, and when he left the witness box Sir Edward Clarke and the other counsel for the plaintiff, appreciating the fact that all the other fifty or sixty witnesses, comprising a number of the leading men and women of the English great world, would take their cue from the earl, and, like him, would fail to remember having heard any libellous statements about the baron, either from Lady Gerard or from Harry Milner, announced that they declined to proceed any further with the case, and the proceedings were thereupon dropped.

BARONESS DE FOREST.

Lord Derby, by his lapse of memory, thus cut short at the very outset of the trial a case which threatened to develop into one of the greatest causes célèbres in the annals of British jurisprudence. It was not that the actual charges of Baron de Forest were of any particular importance, but it was the number and the rank of the witnesses that had been subpœnaed by the baron's lawyers in the affair, including at least one royal prince, and it was proposed to submit each one of them to a grilling cross-examination, which might have laid bare many an oddity, liable to misconstruction by the masses. In one word, there was a prospect of English society being put on the grill, and not only of several distressing family secrets being bared to the public, but also of people wholly innocent of wrongdoing being placed in an entirely false light in the eyes of the masses.

Sometimes the laws of honor and those of the land are in conflict with each other, and when this occurs the man of birth and breeding—aye, I would say more, the man with warm, red blood in his veins, no matter what his rank—is likely to give the preference to what he considers the requirements of honor, especially where the fair name of women and the happiness of innocent parties are concerned. Lord Derby, whose grandfather, the fourteenth earl, declined the throne of Greece, and whose forebears in the male line direct reigned as sovereigns over the Isle of Man, acted as he did in the De Forest agt. Milner-Gerard trial in accordance with the ethics of his caste, and there are few today save the plaintiff, who is of foreign origin, who are disposed to do anything else than warmly to approve of his attitude. Had the memory of this peer, who officiated as censor of the press at the front throughout the Boer war under his former title of Lord Stanley, "remembered," not one but many painful affairs would have ensued. He averted them by his forgetfulness.

A number of years ago the memory of one of the leading statesmen of Great Britain was also taxed in a manner involving the reputation of a woman. He had every reason to be exasperated against her, for she had taken a leading part in bringing into the courts of law charges against him made by a married daughter of hers who was afflicted with hysterical illusions—charges of which the mother had every reason to know that he was wholly innocent. He knew that she was prompted by that sentiment of revenge that women so often feel for the man whom they have ceased to please. As Byron says, "Hell has no fury like a woman scorned." The statesman concerned was questioned about her on oath. The laws of honor required that since a woman's name was at stake he should deny. The laws of the land demanded that he should speak the truth, the whole truth and nothing but the truth. He obeyed the latter instead of the former; or, rather, he refrained from denying, his refusal to answer constituting an admission. For this, and for this alone, he was ostracised for many years by his fellow countrymen, was barred from political preferment to which he was entitled by his services to the nation and by a grasp so unrivalled of imperial and foreign affairs that it would have led him to the Premiership, and died the other day a disappointed and broken man.

King Edward while still Prince of Wales was involved, quite innocently, in a divorce suit, his citation in the matter being entirely due to a long standing personal quarrel with the plaintiff in connection with racing matters and to that strict rule of European court etiquette which exacts that when a royal personage is honoring any house with a call no other visitor shall be admitted until his or her departure. The then Prince of Wales declined to avail himself of any immunities that he might possess, and, entering the witness box, denied on oath the allegations against the lady concerned and was acquitted with flying colors by a jury of his countrymen. Yet despite this judicial declaration of an innocence abundantly proved, there have always been many who persisted in believing that he had really been guilty, but that he had "perjured himself like a gentleman" for the sake of the lady in the case. This, far from injuring him, served on the contrary to vastly increase his popularity, not only with those Britons who are disposed to elasticity on the score of morality, but even among those of a more straitlaced turn of mind.

In this connection let me point out that in every country of Continental Europe dueling is strictly forbidden by the law of the land. Yet the officer who refuses to fight in an affair of this kind, after the quarrel has been passed upon by a court of honor composed of his comrades, is driven from the army or navy, as the case may be, and has nothing left but expatriation; while in the same way any gentleman in civil life who refuses to grant satisfaction, or who omits to demand it in the case of insult, becomes a social outcast, is expelled from all the clubs to which he may belong and becomes branded with the stigma of indelible disgrace.

Before proceeding any further let me say here that Baron de Forest, no matter what the rights and wrongs in the differences with his wife, was singularly ill advised in embarking upon his recent lawsuit against Lady Gerard and Harry Milner and in subpœnaing so many prominent people in English society. It is always an unwise thing for an outsider to buck up against that portion thereof which constitutes the great world of the United Kingdom in the true sense of the word, for among its most notable characteristics is a species of esprit de corps which leads its members to band together for the defence of any of them against one not of their caste, always providing that the culprit has not been guilty of an offence so utterly dishonorable and infamous as to place him without the pale. A notable instance of this peculiarity was furnished by the case of Major Edmund Barttelot, of the Coldstream Guards, second in command of Stanley's Emin Pacha relief expedition. The major was murdered by his followers, and Sir Henry Stanley, instead of saying naught but what was kindly, or, failing that, maintaining silence on the subject, cast aspersions upon Barttelot's fair name affecting not only his conduct but also his humanity, and even his honor. In one word, he insisted that Barttelot had brought his own fate upon himself, and had actually deserved it, owing to his cruelty to the natives and his drunkenness. These charges were bitterly resented by Barttelot's many friends, relatives and comrades, while they cut to the heart to such an extent the aged father of the unfortunate officer, old Sir Walter Barttelot, until then a hale and hearty member of the House of Commons and the finest type of the English country gentleman, that he withdrew altogether from public life and never held up his head again, dying about a year or so afterward.

Stanley covered himself with so much odium in connection with the affair, bitterly antagonizing the English great world, and even the court, that it was not until a number of years later that the government ventured to bestow upon him the reward which had been promised him in the event of his rescuing Emin Pacha—namely, the Grand Cross of the Order of the Bath. Edmund Barttelot may or may not have been guilty of some of the offences ascribed to him. The Congo climate and the absence of the restraints of conventionality and civilization in Central Africa have developed in a number of instances a species of insanity among white men. Perhaps Barttelot had become afflicted therewith. At any rate, since he had paid the penalty with his life, Stanley should have maintained silence, even at the risk of exposing himself to accusations of lack of generous appreciation of the services of his second in command, whose record until then had been wholly clean. He made the mistake of his life in speaking when he should have held his tongue, and it was owing to this that he never received the proper appreciation of his feat in rescuing Emin, was ostracized until his end by English society, and died a cruelly disappointed and thoroughly embittered man, whose remains were denied burial, under somewhat sensational circumstances, in England's Walhalla—namely, Westminster Abbey.

THE EARL OF DERBY.

Baron de Forest had far less right to expect any consideration by the English grande monde than Sir Henry Stanley. He is not a famous explorer. He is branded with the stigma of illegitimacy, and owes his Austrian title of baron and his tolerance by British society to the vast charities and world-wide philanthropic enterprises of his father, Baron Hirsch, for whose sake, indeed, he was taken up and, to a certain extent, sponsored in the United Kingdom by the late King Edward. But as a foreigner—that is to say, English only by naturalization—he always remained an outsider. His ways were those of an alien; also his ethics. His first marriage to a well known French widow had been dissolved in Paris under somewhat peculiar circumstances, which were of a character that boded ill for his subsequent marriage to the pretty sister of Lord Gerard. As anticipated, the alliance turned out unhappily, and although he received the baroness back and became reconciled to her on each of the first two occasions of her flight from her home, yet she seems to have found life with him so intolerable that she eventually abandoned him for a third and last time. While the world to which the Baroness de Forest belongs by birth always resents conduct calculated to result in a public scandal on the part of any of its members, it seems to believe that the provocation which she had received was sufficient to account for her leaving him, and his readiness to take her back went for nothing in the eyes of Mayfair. Instead of either consenting to a legal separation or even divorcing her, he took the utterly foolish step of endeavoring to right himself in the eyes of the English great world by suing her mother and her uncle for slandering him in alleging his ill treatment of her, and made the matter still worse by dragging into the affair the names of all sorts of prominent people. The result has been that he has not only lost his case, or failed to clear himself of the charges against him, but has forfeited forever any claim upon the good will or the indulgence of the caste into which he had married and to which he has become now anathema.

EX-ATTACHE.